

## **CHEMICALLY MODIFIED ENZYMES WITH MULTIPLE CHARGED VARIANTS**

### **ABSTRACT OF THE DISCLOSURE**

This invention provides modified enzymes comprising one or more amino acid residues replaced by cysteine residues, where the cysteine residues are modified by replacing the thiol hydrogen in the cysteine residues with a substituent group providing a thiol side chain comprising a multiply charged moiety. The enzymes show improved interaction and/or specificity and/or activity with charged substrates.

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